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SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR

RIO GRANDE BASIN

April 1, 1939

The following data pertaining to snow surveys and irrigation water-supply forecasts are provided by the Bureau of Agricultural Engineering of the U. S. Department of Agriculture, in cooperation with other Federal Bureaus, State Departments, and local organizations. The snow measurements are made principally by field personnel of the U. S. Forest Service and Colorado State Engineer. This work is otherwise conducted cooperatively with the State Engineers of Colorado and New Mexico, Colorado Agricultural Experiment Station, and various municipalities, irrigation associations and others. Precipitation records are supplied by the U. S. Weather Bureau.

PRECIPITATION DATA

WATERSHED	STATE	Precipitation October 1 to March 31	Departure from Normal	Precipitation March	Departure from Normal
		Inches	Inches	Inches	Inches
Canadian	New Mexico	4.87	-1.75	0.35	-0.40
Rio Grande	Colorado	4.50	1.28	.45	-0.09
Rio Grande	New Mexico	6.63	.24	.97	-0.25
Pecos	New Mexico	4.63	.38	.77	0.0

There is more than twice as much water in storage in the reservoirs in the San Luis Valley as there was last year on April 1, and in the Elephant Butte Reservoir in New Mexico, the storage is 10 percent greater than it was last year at this time. In the Caballo Reservoir, the storage is twice as great as last year.

Soil moisture conditions are excellent in the San Luis Valley in Colorado, and in the Middle Rio Grande Conservancy District in New Mexico there is more than normal moisture in the ground. In the lower valley of the Rio Grande, soil moisture conditions are normal.

Early melting of snow cover on the Watershed of the Rio Grande in Colorado and New Mexico has reduced materially the amount available for late runoff. Fifteen snow courses on the Rio Grande and tributaries show an average water content of 5.4 inches, whereas last year at this time it was 9.7 inches. On the watershed of the Canadian the water content, as shown by two courses, is 0.7 inches. Last year it was 4.0 inches. Unless considerable snow accumulates in the high mountain areas during April, the runoff of the Rio Grande and Canadian will be considerably less than last year.

RIO GRANDE RIVER

Summary of Federal and State Cooperative Snow Surveys

Bureau of Agricultural Engineering, U. S. Dept. Agri.; Forest Service; Colo. Agri. Expt. Station

Issued April 10, 1939 Colo. Expt. Station, Fort Collins, Colo.

No.	Main Drainage and Snow Course	Local Drainage	Location: State	Location: Locality	Location: Description	Elev.	National Forest	Apr. 1 Snow Course Measurements: Av. Snow Depth: Avg. In.	Av. Snow Depth: 1938 In.	Av. Snow Depth: 1939 In.	Av. Water Content: Avg. In.	Av. Water Content: 1938 In.	Av. Water Content: 1939 In.
	RIO GRANDE												
26	Wolf Creek Pass	South Fork	Colo.	Wolf Cr. Pass	4-37N-2E	10000	Rio Grande	92.0	111.3	61.7	32.7	39.3	23.1
27	Upper Rio Grande	Rio Grande	"	Rio Grande Res.	13-40N-4W	9350	" "	21.0	30.0	0.0	4.7	5.6	0.0
74	LaVeta Pass No.2	San.CristoCr.	"	LaVeta Pass	22-28S-70W	9300	Off Forest	25.0#	37.5	22.6	7.2#	10.2	7.2
47	Silver Lakes	Alamosa R.	"	1 mi.S.Silver L.	15-36N-5E	9600	Rio Grande	23.2	30.4	12.0	6.2	8.2	3.3
49	River Springs	Conejos R.	"	10mi.W.Mogote	25-33N-6E	9300	" "	29.4	36.2	16.4	9.1	10.1	4.6
75	Ute Ridge	Rio Grande	"	Rio Grande Res.	31-41N-4W	9700	" "	—	—	0.0	—	—	0.0
76	Summitville	Wightman Cr.	"	Summitville	30-37N-4E	11500	" "	—	—	55.6	—	—	15.2
77	Cumbres Pass No.2	Los Pinos R.	"	Cumbres Pass	17-32N-5E	10000	" "	76.1	82.9#	46.8	30.4	31.6#	18.3
80	Santa Maria	N.Clear Cr.	"	Santa Maria Res.	8-41N-2W	9700	" "	—	—	0.0	—	—	0.0
1	Red River	Red River	N.Mex.	6mi.SE.Red River	29-28N-15E	9500	Carson	24.2	29.5	4.9	7.7	8.0	2.2
2	Taos Canon	Rio de Taos	"	14mi.E.Taos	10-25N-15E	9000	"	14.9	12.2	5.1	4.9	3.6	2.4
4	Aspen Grove	Rio En Medio	"	10mi.NE.Santa Fe	12-18N-10E	9100	Santa Fe	3.3	0.6	2.8	1.0	0.1	0.8
5	Lee Ranch	Jemez Cr.	"	5mi.NW.Bland	3-18N-4E	9050	" "	16.9	11.4	11.7	4.8	2.9	3.4
6	Canjilon	Canjilon Cr.	"	8mi.NE.Canjilon	4-26N-6E	9500	Carson	49.7	53.9	32.4	20.7	18.7	16.5
7	Rio Nutrias	Rio Nutrias	"	10mi.SE.ParkView	6-27N-5E	7900	"	8.3	6.1	0.0	3.0	1.3	0.0
8	Panchuela	Panchuela Cr.	"	1mi.N.Cowles	34-19N-12E	8500	Santa Fe	0.8	0.0	0.0	0.3	0.0	0.0
9	Hematite Park*	Red River	"	3mi.SE.Red R.	8-28N-15E	9500	Carson	14.8	22.1	0.0	4.3	5.4	0.0
12	Tres Ritos	Agua Piedra	"	7mi.W.Holman	23-22N-13E	9000	"	2.9	4.3	1.6	0.8	1.0	0.6
							Average for Drainage	26.8	31.2	15.2	9.2	9.7	5.4
	CANADIAN												
9	Hematite Park	Moreno Cr.	"	3mi.SE.Red R.	8-28N-15E	9500	Carson	14.8	22.1	0.0	4.3	5.4	0.0
10	Ocate Mesa	Ocate Cr.	"	3mi.E.Black Lake	25-24N-16E	9200	Off Forest	8.7	12.5	2.9	2.7	2.7	1.4
							Average for Drainage	11.7	17.3	1.5	3.5	4.0	0.7

*On adjacent drainage

#Readings on original course